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Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A measuring instrument for measuring ~~an~~ fluorescence intensity of fluorescence of each of a plurality of fluorescent coloring matters when a sample mixed with the plurality of fluorescent coloring matters having different excitation wavelengths and having numbers 1 to n given thereto ~~transmitted light or radiated light for each coloring matter when a sample mixed with a plurality of coloring matters~~ is irradiated with light having different wavelengths, comprising:

a light source unit capable of irradiating the sample with the light having the different wavelengths; a light receiving unit that receives ~~the transmitted light or the radiated light~~ fluorescence of the fluorescent coloring matters and outputs an electrical signal corresponding to ~~the intensity of the received light~~ a fluorescence intensity of the received fluorescence; ~~and~~ a calculation section and a light amount monitor that detects a light amount of light emitted by the light source unit and outputs a signal to the calculation section,

wherein the calculation section calculates the fluorescence intensity of the ~~transmitted light or the radiated light for each of the coloring matters using a correction coefficient that is calculated based on an electrical signal output by the light receiving unit when the light source unit irradiates each of a plurality of correction samples with light having a different wavelength from one another, each correction sample being mixed with one of the plurality of coloring matters and the respective mixed coloring matters being different from one another.~~ fluorescence of each of the fluorescent coloring matters emitted from the sample using a correction coefficient that is calculated based upon an output value X_k of the electrical signal output by the light receiving unit when the light source unit irradiates each of a plurality of correction samples, each correction sample being mixed with one of the plurality of fluorescent coloring matters and the respective mixed fluorescent coloring matters being different from one another, with light

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having an excitation wavelength of a k-th fluorescent coloring matter (k=1, 2, ..., n),

assuming that a fluorescent intensity of the k-th fluorescent coloring matter is represented by Y_k in the sample mixed with the plurality of fluorescent coloring matters, the correction coefficient is a matrix (a_{ij} (i=1, 2, ..., n; j=1, 2, ..., n)) satisfying Expression (23):

$$\begin{bmatrix} a_{11} & a_{12} & a_{13} & a_{14} & \cdots & a_{1n} \\ a_{21} & a_{22} & a_{23} & a_{24} & \cdots & a_{2n} \\ a_{31} & a_{32} & a_{33} & a_{34} & \cdots & a_{3n} \\ a_{41} & a_{42} & a_{43} & a_{44} & \cdots & a_{4n} \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \\ a_{n1} & a_{n2} & a_{n3} & a_{n4} & \cdots & a_{nn} \end{bmatrix} \begin{bmatrix} Y_1 \\ Y_2 \\ Y_3 \\ Y_4 \\ \vdots \\ Y_n \end{bmatrix} = \begin{bmatrix} X_1 \\ X_2 \\ X_3 \\ X_4 \\ \vdots \\ X_n \end{bmatrix} \quad \cdots\cdots (23)$$

wherein the calculation section corrects the output values X_1 to X_n or the matrix elements a_{11} to a_{nn} based on the signal output by the light amount monitor.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) A fluorometric method for measuring a fluorescence intensity of fluorescence of each of a plurality of fluorescent coloring matters, the fluorescence being emitted from a sample mixed with the plurality of fluorescent coloring matters having different excitation wavelengths and having numbers 1 to n given thereto, by using a light source unit capable of emitting light having different wavelengths and a light receiving unit that receives the fluorescence of the fluorescent coloring matters and outputs an electrical signal corresponding to the fluorescence intensity of the received fluorescence, the method comprising:

calculating the fluorescence intensity of the fluorescence of each fluorescent coloring matter emitted from the sample using a correction coefficient,

wherein the correction coefficient is calculated based on an output value X_k of the

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electrical signal output by the light receiving unit when the light source unit irradiates each of a plurality of correction samples, each correction sample being mixed with one of the plurality of fluorescent coloring matters and the respective mixed fluorescent coloring matters being different from one another, with light having an ~~corresponding~~ excitation wavelength of ~~the plurality of fluorescent coloring matters~~ a k-th fluorescent coloring matter (k=1, 2, ..., n), and assuming that a fluorescence intensity of the k-th fluorescent coloring matter is represented by Y_k in the sample mixed with the plurality of fluorescent coloring matters, the correction coefficient is a matrix (a_{ij} (i=1, 2, ..., n; j=1, 2, ..., n)) satisfying Expression (24):

$$\begin{bmatrix} a_{11} & a_{12} & a_{13} & a_{14} & \cdots & a_{1n} \\ a_{21} & a_{22} & a_{23} & a_{24} & \cdots & a_{2n} \\ a_{31} & a_{32} & a_{33} & a_{34} & \cdots & a_{3n} \\ a_{41} & a_{42} & a_{43} & a_{44} & \cdots & a_{4n} \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \\ a_{n1} & a_{n2} & a_{n3} & a_{n4} & \cdots & a_{nn} \end{bmatrix} \begin{bmatrix} Y_1 \\ Y_2 \\ Y_3 \\ Y_4 \\ \vdots \\ Y_n \end{bmatrix} = \begin{bmatrix} X_1 \\ X_2 \\ X_3 \\ X_4 \\ \vdots \\ X_n \end{bmatrix} \quad \cdots\cdots (24)$$

wherein in the calculating step, the output values X_1 to X_n or the matrix elements a_{11} to a_{nn} are corrected based on a light amount of light emitted by the light source unit.

6. (Cancelled)

7. (Cancelled)

8. (Currently Amended) A computer program product comprising a program recorded in a recording medium, the program ~~for~~ causing a computer to measure a fluorescence intensity of fluorescence of each of a plurality of fluorescent coloring matters, the fluorescence being emitted from a sample mixed with the plurality of fluorescent coloring matters having different excitation wavelengths and having numbers 1 to n given thereto, using a light source unit capable of emitting light having different wavelengths and a light receiving unit that receives the fluorescence of the fluorescent coloring matters and outputs an electrical signal corresponding to the fluorescence intensity of the received fluorescence, the program comprising,

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the step of calculating the fluorescence intensity of the fluorescence of each fluorescent coloring matter emitted from the sample using a correction coefficient,

wherein the correction coefficient is calculated based on an output value X_k of the electrical signal output by the light receiving unit when the light source unit irradiates each of a plurality of correction samples, each correction sample being mixed with one of the plurality of fluorescent coloring matters and the respective mixed fluorescent coloring matters being different from one another, with light having an ~~corresponding~~ excitation wavelength of ~~the plurality of fluorescent coloring matters~~ a k-th fluorescent coloring matter (k=1, 2, ..., n) and assuming that a fluorescence intensity of the k-th fluorescent coloring matter is represented by Y_k in the sample mixed with the plurality of fluorescent coloring matters, the correction coefficient is a matrix (a_{ij} (i=1, 2, ..., n; j=1, 2, ..., n)) satisfying Expression (25) :

$$\begin{bmatrix} a_{11} & a_{12} & a_{13} & a_{14} & \cdots & a_{1n} \\ a_{21} & a_{22} & a_{23} & a_{24} & \cdots & a_{2n} \\ a_{31} & a_{32} & a_{33} & a_{34} & \cdots & a_{3n} \\ a_{41} & a_{42} & a_{43} & a_{44} & \cdots & a_{4n} \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \\ a_{n1} & a_{n2} & a_{n3} & a_{n4} & \cdots & a_{nn} \end{bmatrix} \begin{bmatrix} Y_1 \\ Y_2 \\ Y_3 \\ Y_4 \\ \vdots \\ Y_n \end{bmatrix} = \begin{bmatrix} X_1 \\ X_2 \\ X_3 \\ X_4 \\ \vdots \\ X_n \end{bmatrix} \quad \cdots\cdots (25)$$

wherein in the calculating step, the output values X_1 to X_n or the matrix elements a_{11} to a_{nn} are corrected based on a light amount of light emitted by the light source unit.

9. (Cancelled)

10. (Cancelled)